

REMARKS

The Office Action dated December 17, 2007, has been received and carefully reviewed. The preceding amendments and the following remarks form a full and complete response thereto. Claims 1-3 have been amended as to matters of form. No new matter has been added. Accordingly, claims 1-3 are pending in this application and are submitted for consideration.

The Office Action made an objection to Information Disclosure Statement filed along with the application on the ground that two Japanese references were not attached thereto. Applicants shall submit a new IDS that complies with the rules.

Claims 1-3 were rejected under 35 U.S.C. § 112, paragraph 2, as being allegedly indefinite. Claims 1-3 have been amended. The objectionable language was removed from claim 1. Applicant submits that claims 1-3 comply with the requirements of 35 U.S.C. §112, and request that the rejection be withdrawn.

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable by reason of obvious in view of a combination of a plurality of references: U.S. Patent Nos. 5,333,111 ("Chaiken), 5,806,390 ("Pomerleau"), and 4,833,957 ("Lundgren"). Applicants respectfully traverse the rejection and submit that claims 1-3 recite subject matter that is neither disclosed nor suggested by the combination of cited prior art.

Claim 1, upon which claims 2-3 depend, defines a teaching device for an automatic cutting machine having a cutting table, a cutting head, and a cutting area on the table for placing a sheet within the cutting area. The cutting head is capable of cutting the sheet only within the cutting area. The teaching device, upon the

designation of at least two teaching points on the sheet, computes a position and a slope of the sheet to the cutting area, corrects marking data including cutting pattern of parts to be cut out from the sheet in accordance with the position and the slope of the sheet, and cuts the sheet with corrected marking data. The teaching device includes judging means for judging whether the cutting pattern is contained within the cutting areas *after* designation of the teaching points and correction of the marking data. The teaching device also includes subsidiary means for evaluating whether movement of the marking data or movement the sheet in position makes the cutting pattern within the cutting area, when the error is judged by the judgment means. Further, the subsidiary means corrects the marking data relative to the cutting area when it is evaluated that movement of the marking data will make the cutting pattern within the cutting area, or it corrects the sheet relative to the cutting area when it is evaluated that movement of the sheet in position will make the cutting pattern within the cutting area.

For example, pages 5-11 of the specification describe the structure and acts of the judgment means and subsidiary means of claim 1 to bring a cutting pattern P that is judged to be outside of a cutting area 58, back into the cutting area 58 by either moving the sheet (e.g., by driving the conveyor belt 14) or by moving the marking data. None of the cited prior art discloses or suggest, either alone or in combination, the structure and acts disclosed in the present application that performs the claimed functions.

Chaiken discloses a device for cutting sheet material. Chaiken is particularly directed to dealing with alignment of a plaid or stripe in the fabrics in several adjacent pieces. See, Chaiken at col.1, lines 30-33. Chaiken shows the alignment of fabric design and pattern in its Fig. 8, and misalignment in Fig 7. Chaiken also calls alignment

“matching.” Chaiken fails to disclose, and in fact never deals with, judging means and subsidiary means for judging whether the cutting pattern is within the cutting area or making the cutting pattern be within the cutting area, for evaluating whether movement of the marking data or movement the sheet in position makes the cutting pattern within the cutting area, when the error is judged by the judgment means, and for correcting the marking data or the sheet based on the evaluation. The cited secondary prior art references fail to cure the deficiencies of Chaiken.

Pomerleau merely discloses a cutting system that uses multiple markers for side-by-side set-ups and fails to disclose judging means or subsidiary means as recited by claim 1 of the present application.

Lundgren discloses a method and apparatus for cutting off selected length panels from an indefinite length strip. The problem that Lundgren deals with is illustrated in its Figs. 1-3. “TE” in Fig. 3 represents a transverse edge. In Figs. 9-11, Lundgren discloses how to detect the deviation D of the transverse edge TE from the perpendicularity to the strip S. Once the deviation is detected, the cutting direction is modified. Lundgren also discloses that the cutting means can be shifted to tend to reduce the deviation D. See, col. 11, lines 14-35. However, Lundgren fails to disclose or suggest a teaching device that includes judgment means for judging whether the cutting pattern is contained within the cutting area, after designation of the teaching points and the correction of the marking data or a teaching device that includes subsidiary means for evaluating whether **movement of the marking data** or **movement of the sheet** makes the cutting pattern within the cutting area, when the error is judged by the judgment means, and for **correcting the marking data** relative to

the cutting area when it is evaluated that movement of the marking data will make the cutting pattern within the cutting area, or **correcting the sheet** relative to the cutting area when it is evaluated that movement of the sheet in position will make the cutting pattern within the cutting area.

The Office Action cites to columns 6, lines 3-15 and 11, lines 15-29 of Lundgren as allegedly disclosing the claimed judging and subsidiary means. These sections, however, merely disclose a device for detecting deviation (67) from a straight line and for moving the cutting means 46 to attempt to decrease or eliminate the deviation. Namely, "computer 89 determines the deviation D (Fig. 9B), if any, of the line of light spots LLS and actuates the longitudinal moving motor M2 to longitudinally shift the second carriage 76 (and thereby the cutting means 46 and optical sensing means, or camera, 87) to tend to reduce the deviation D, i.e. so the selected line LLS of light spots tends to cross substantially the same scan line X (Fig. 9B) at the same horizontal location & in each successive frame F1, F2 . . . or at least tends to approach that positioning." Col. 11, lines 14-24 of Lundgren. Lundgren simply fails to disclose judging means for judging whether a cutting pattern is containing within a cutting area. Moreover, even if its computer 89 is considered judging means (which it is not), there is nothing disclosed in Lundgren that determines whether (1) movement of the sheet or (2) movement of the marking data makes the pattern fall within the cutting area, and makes the corresponding correction. In great contrast to the claimed invention, Lundgren merely discloses a device for cutting sections of sheets and attempts adjust the cutting device when the sheet is not straight.

Thus, Applicants submit that the combination of cited prior art fails to disclose or suggest each and every feature of claim 1, upon which claims 2-3 depend. Accordingly, Applicants request that the rejection to claims 1-3 be withdrawn.

In view of the above, all objections and rejections have been sufficiently addressed. Applicants submit that the application is now in condition for allowance and requests that claims 1-3 be allowed and this application passed to issue.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

Respectfully submitted,

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